

PROJECT INFORMATION

Project title: Understorey vegetation community stability and drivers of change

Project ID: 227

Contact person: James Weldon // james.weldon@slu.se
Ulf Grandin // ulf.grandin@slu.se

PROJECT DESCRIPTION

Quantifying the stability of ecological communities is important for understanding, predicting, and managing consequences of environmental change such as biodiversity loss, yet this is often done at local scale. We aim to use data from across Europe to investigate the stability of understorey forest vegetation communities and to identify drivers of change. We will do this by adapting the methodology successfully used in a limnological context by Fried-Peterson et al. (2019) to terrestrial ecology. Essentially this involves summarising community composition for each plot in each year using ordination methods (e.g. DCA or PCA), then examining potential drivers of community stability at a large spatial scale by analysing the within-plot variability in PCA scores across time and relating this to factors such as latitude, species richness and N deposition levels, using Bayesian mixed effects models.

References

Fried-Petersen, H. B., Araya-Ajoy, Y. G., Fitter, M. N., & Angeler, D. G. (2019) Drivers of long-term invertebrate community stability in changing Swedish lakes. *Global Change Biology*. <https://doi.org/10.1111/gcb.14952>